REPORT

ON THE

SANITARY CONDITION

OF THE

MALTON URBAN SANITARY DISTRICT

FOR THE YEAR 1895,

BY

HENRY MAINWARING-HOLT,

M.R.C.S., L.S.A., D.P.H., &c.,

MEDICAL OFFICER OF HEALTH.

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CONTENTS

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DURING 1895.

REPORT OF THE MEDICAL OFFICER OF HEALTH

To the Sanitary Committee.

Area of the District.—The area of the District is 4,130 acres.

Population.—For the purposes of this Report an estimate is required of the number of persons living in the District at Midsummer, 1895. The estimate for 1895 is 4,775 persons.

Decrease in Population.—In my previous Annual Reports I have stated "that whatsoever is inimical to the industry of agriculture is prejudicial to the interests of this district." Furthermore, in my Report for 1893, I pointed out certain factors which, in my opinion, have caused thousands of acres to pass from tillage to pasturage, and driven the labouring agriculturists into towns. In the same Report reference is made to the desirability of using "home-grown grain only" for the purposes of brewing and distilling. Agriculturists are now giving this matter some attention, and it is to be hoped that means may be devised whereby this constant drain upon the population may be diminished.

Births and Deaths.—The returns of the local Registrar during the year 1895 recorded 116 births and 94 deaths in the Malton Urban Sanitary District. The natural increase in the population in 1895 was, therefore, 22. Of the births 61 were males and 55 females; of the deaths 50 were males and 44 females.

The following gives at a glance the numbers of Births and Deaths registered during the years 1891, 1892, 1893, 1894, and 1895:—

	1891	1892	1893	1894	1895
Births	132	129	130	145	116
Deaths	105	68	102	56	94

Birth-rates.—There were 116 births registered during the year 1895, giving a birth-rate of 24·29 per thousand. In 1894 the birth-rate was 30·25 per thousand.

Death-rates.—The number of deaths registered during the year 1895 was 94, giving a death-rate of 19·68 per thousand.

The Classification of Death Causes.—The causes of death, as they appear in the following, are systematically arranged in classes and orders; genera are not distinguished.

Classes and Orders.	Diseases.	Jan		Feb		Mar		Apl		May		June		July		Aug		Sep		Oct		Nov		Dec		Ttl
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
I. Zymotic Diseases	Scarlet Fever														1							1				2
	Diphtheria																					1				1
1. Miasmatic	Erysipelas						1																			1
2. Diarrhœal	Diarrhœa									1							2	2	7		2					14
II. Constitutional Diseases..	Rheumatic Fever																									
	Cancer, malignant			1			1						1													3
	Tabes Mesenterica																									
	Tubercular Meningitis														1		1									2
	Phthisis	2	1	1								1														5
III. Local Diseases.	Glycosuria, Diabetes																							1		1
1. Nervous System	Apoplexy, Brain Paralysis									1		1	1		1											4
	Convulsions			2																						2
2. Circulatory System..	Other diseases of Nervous System ..								1																	1
	Valvular Diseases of Heart													1											1	2
	Other Diseases of Heart	1					1	1	1	1				2									1	2	1	11
3. Respiratory System..	Laryngitis											1														1
	Bronchitis			2				3									1						1	1		8
	Pneumonia			1		2																				3
	Other Diseases of Resp. System						1	1									1									3
4. Digestive System ..	Diseases of Stomach																				1					1
	Cirrhosis of Liver																			1			1	1		3
	Intestinal Obstruction						1																			1
	Peritonitis															1										1
5. Urinary System ...	Nephritis			1					1										1							3
IV. Developmental Diseases.	Premature Birth				1							1				1								1		4
Deaths from ill-defined and	Old Age			1	1	1	1	1	1					1			1			1		2	1		2	14
not specified causes	Debility																	1		1			1			3
		3	1	9	2	3	6	6	4	3	0	4	2	4	3	2	6	3	8	3	3	4	5	6	4	
		4		11		9		10		3		6		7		8		11		6		9		10		94

The following epitomises the ages at which death occurred, and compares the years 1891, 1892, 1893, 1894, 1895 :—

	1891	1892	1893	1894	1895
Deaths under 1 year of age	20	8	18	17	24
„ over 1 „ and under 5....	7	3	11	4	8
„ „ 5 „ „ 15....	5	2	2	5	2
„ „ 15 „ „ 25....	8	1	4	2	3
„ „ 25 „ „ 65....	30	29	35	14	23
„ „ 65 „ and upwards....	35	25	32	14	34
	105	68	102	56	94

The grouping together into various ages in the foregoing table is in accordance with the Schedule furnished by the Local Government Board, which is duly filled in and accompanies this report.

Further particulars as to the deaths in the district for 1895, that is to say, the number registered in each quarter of the year, and the number referred to each Ward, as also those dying in the Union.

	First Quarter.		Second Quarter.		Third Quarter.		Fourth Quarter.		Totals.	
	M	F	M	F	M	F	M	F	M	F
St. Mary's, Old Malton ..	2	1	4	0	1	3	2	3	9	7
St. Michael's, New Malton	4	3	4	2	3	6	4	3	15	14
St. Leonard's, New Malton	9	3	4	3	5	8	6	5	24	19
Workhouse	0	2	1	0	0	1	1	1	2	4
	15	9	13	5	9	18	13	12	50	44

Inquests.—Two inquests have been held during the year—one for St. Michael's Ward and one for St. Leonard's Ward.

Zymotic Diseases.—The deaths from zymotic diseases include 17 by what have been termed the chief zymotics, viz. :—Scarlet fever 2, diphtheria 1, diarrhœa 14. No death has been recorded from smallpox, measles, whooping cough, typhus, or typhoid fever.

The Zymotic Death-rate for the year 1895 is 3·57 per thousand. In 1894 zymotic disease caused 5 deaths, and the death rate was 1·04 per thousand. In 1893 the death-rate was 3·52 per thousand.

The time has now arrived when it would be distinctly helpful to have an authoritative classification of so-called zymotic diseases, in order that some uniformity be observed by Medical Officers of Health in estimating the zymotic death-rate.

Twenty-seven cases of infectious diseases were notified to me during the year 1895. Of these cases 7 occurred in St. Mary's Ward, 11 in St. Michael's Ward, and 9 in St. Leonard's Ward. No case occurred in the Workhouse. Of the total cases one did not belong to the district.

Smallpox.—No case has been reported to me during the year 1895. It is a significant fact that whenever smallpox has appeared in this district within the past five years, it has invariably been introduced from without, and that by means of tramps.

Scarlatina.—Of the 12 cases notified, none resulted in death. I find that one case of scarlatina has not been notified to me in accordance with the requirements of the Act of 1889. Such case proved fatal.

Erysipelas.—There were 6 cases of erysipelas reported during the year, with one death resulting therefrom. It would be helpful if the various forms of this disease were indicated when notified.

Diphtheria.—Three cases of this disease were notified. In one case the membrane was submitted to Dr. Klein, but no characteristic bacilli were found. One death is returned from this cause.

Enteric Fever.—Six cases have been notified, of these two were introduced, and other two notified as doubtful. There has been no death reported from this cause during the years 1892, 1893, 1894, and 1895. Taking into consideration the fact that enteric fever has been more or less prevalant in the towns and villages on the river Rye during the above mentioned periods, and that the Rye enters the Derwent some four miles above Malton, there is reason for some congratulation upon our escape from such a dread scourge.

From "Dr. Bruce Low's report to the Local Government Board on an Outbreak of Enteric Fever in certain villages situate on the river Rye in North Yorkshire; and on the Water Supply of the Malton Urban Sanitary District," it appears that there was a prevalance of enteric fever during the years 1873, 1874, 1875, 1876, 1877, 1878, no fewer than 315 cases being recorded up to September 30th of that year. Fatal cases are to be found in the death records of 1878, 1879, 1880, 1881. For 1882 and 1883 no record appears, but in 1884, 1885, 1886, 1887, 1888, and 1889 enteric fever recurred yearly. In the last-mentioned year "there was a remarkable outbreak of epidemic diarrhœa, which seems to have affected almost every household in the town. As an

example of its abundance and gravity, one medical man stated that he was called upon to treat 90 cases of diarrhœa in one day."

It remains for me to point out that the Malton Urban Sanitary Authority of the above periods included what is now the Norton Urban District, and considering the drainage and water supplies to each district at that time, it is not at all remarkable that enteric fever and diarrhœa appeared from time to time, and sometimes became epidemic.

Tuberculosis.—Any information under this heading is valuable, even an expression of opinion is sometimes of service. I find that during the years 1891 to 1895 inclusive, 32 cases of tubercular disease, which include tabes mesenterica, tubercular meningitis, and pulmonary phthisis, have been reported in the death returns. It is my duty to note the prevalence of such diseases, and at the same time to indicate those measures which should be taken for their prevention.

Apart from soil and climate, there stands out the more important factor of social condition, involving so many sub-factors relating to housing and food supply.

In your district I find tuberculosis occurring in the same house and the same family from time to time, the dwelling is usually small, damp, and ill-ventilated, whilst certain members of the family, who have been early removed from home, have not contracted the disease.

In my report of February 25th, I note that certain deaths have occurred from phthisis (tubercular), and state the opinion that there is no reason why tuberculosis should not be as rare in your district as smallpox. With a view of making a step in the direction of prevention, I stated that "the chief channels through which tubercle entered the body are food and air, that means of perfect ventilation should be present in all buildings, domestic and otherwise; that systematic inspection of meat and milk supplies should be undertaken; that where a person has died of tuberculosis (phthisis) the room or rooms which the patient occupied should be immediately ventilated, floors scrubbed, ceilings and walls scraped, doors and paint work washed or re-painted; moreover, all clothing, bedding, &c., should be disinfected by superheated steam, in order that all possible cause of infection be as far as practicable removed." The duty of doing such work is one that the occupants of the dwelling owe to themselves, and in the execution of that duty they should have the hearty co-operation of the Sanitary Authorities.

Measles.—During the last six months of the year German measles (epidemic roseola) was present in the various schools of the district. Slight febrile symptoms, followed by a rash, and convalescence within a week, seems to have been the rule in the cases which have come under my notice. I took advantage of the Christmas holidays to have the schools cleansed and disinfected, and have reason to believe that such steps as were taken by the several authorities have been effectual.

Diarrhœa.—During the months of August, September, and October diarrhœa caused the death of thirteen infants. The mortality was highest during September, when nine deaths were recorded. This visitation is exceptional, since it exceeds the total number of cases recorded for the past six years. Perhaps the heavy rainfall of July and early part of August, followed by the fine, warm weather in the latter part of August and September, may have been determinant factors (*vide* Met. Record).

The cases notified during the year appear in the subjoined tabular return, and also in the schedule which accompanies this report, in conformity with the requirements of the Local Government Board.—

Notifiable Diseases.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Scarlatina	3		1		1		1	2	1		2	1	12
Diphtheria				1		1					1		3
Typhoid Fever			1			1			2		1		5
Erysipelas		1	1	1				1		1		1	6
Continued Fever								1					1
	3	1	3	2	1	2	1	4	3	1	4	2	27

Meteorological Results.—The meteorology for the year 1895, as in previous years, has been furnished by Mr. E. K. Spiegelhalter, F.R.Met.S., from daily observations taken by him at Malton (*vide* Appendix).

Water Supply.—The Water Supply Committee has been earnestly and actively engaged, having had to decide upon the chief points in connection with a water supply, viz.:—

(*a*) A source which shall be constant, copious, and wholesome.

(*b*) To show that such source of supply can be protected against any contamination.

(*c*) To adopt means of distribution which shall be efficient and economical.

(*d*) To provide for supply to higher level of district.

With reference to the first point, I must refer to previous reports, especially to a Special Report on the Water Supply furnished to the Committee in December, 1893, and to my Annual Reports for 1893 and 1894.

In order to obtain accurate evidence upon the second point, daily observations have been taken, and the water submitted to analysis; with the following results:—

Description of Sample	Spring water
Drawn	From well
Appearances in 2ft. tube	Clear and almost colourless
Smell when heated to 100 degrees F.	None
Chlorine in Chlorides	1·52 grains per gallon
Phosphoric Acid in Phosphates	Very slight trace
Nitrogen in Nitrates and Nitrites	·162 grains per gallon
Ammonia	·0002 ,,
Albuminoid Ammonia	·0007 ,,
Oxygen absorbed in 15 minntes at 80 degrees F.	Trace ,,
,, ,, 4 hours ,,	·009 ,,
Total solid matter dried at 242 degrees F.	27·72 ,,
Microscopical examination of deposit	Satisfactory

As a matter of fact, an absolute knowledge of the purity of a water is not obtained by chemical, microscopical, or bacteriological examination or analysis, but rather by the biological test as seen in the effects produced upon the life and health of the consumers.

The question of distribution came before the Water Supply Committee at its meeting on February 25th, 1895. At this meeting it was proposed by Mr. Thomas Botterill, seconded by Mr. Robt. W. Hatfield, that a committee be formed to consider and report on the subject matter of the existing mode of pumping water for the supply to the inhabitants of this district, and also as to the advisability of adopting a modern and less costly scheme than at present existing, and that such committee do report fully on the subject to this committee in due course. Such sub-committee met from time to time, and on June 24th reported that Driffield, Bridlington, and Scarboro' had been visited; that tenders of new plant had been submitted, and much useful information obtained, and that such sub-committee would report more fully on the subject in due course, On July 29th the sub-committee reported having carefully considered the subject of the existing pumping plant, as also the advisability of purchasing a new steam or gas engine, and after reviewing the whole subject thereof, unanimously recommended the purchase of a new steam-engine. It was proposed by Mr. R. Boulton, and seconded by Mr. J. Pallister, and carried unanimously, that the minutes and reports of such sub-committee be recommended to the Council for approval, and that tenders and specifications be solicited by advertisement.

The Surveyor was directed to prepare specifications, particulars, &c., in conjunction with Mr. Millhouse, C.E, of Scarboro'. These recommendations were adopted by the Council.

On September 23rd the Surveyor submitted to the Water Supply Committee a joint report by Mr. Wm. Millhouse and himself, embodying their united opinion upon the various tenders submitted to them for special consideration and recommendation. Such report having been read and considered, it was proposed by Mr. Thomas Tate Smith, seconded by Mr. Hy. Tobey, and carried unanimously, that this committee do recommend to the Council that the tender of Messrs. James Simpson and Co., 101, Grosvenor-road, Pimlico, London, S.W., to supply new steam pumping engine and boiler, &c., be accepted. At a special meeting of the Water Supply Committee held on the 23rd October, 1895, the Surveyor was directed to prepare plan and estimated cost of an additional storage reservoir, with a view of procuring a constant supply of water to the higher part of the town, the supply at present being of service only on the ground floors, upstairs w.c.'s, and baths being provided for by means of storage cisterns on roof or other convenient position. The houses requiring such service being few in number, and chiefly villa residences.

It will be understood from a perusal of the foregoing that the Water Supply Committee have made every possible effort to meet the requirements of the district, and that with the least possible delay.

Housing of the Working Classes.—I have nothing further to report under this heading than that which appeared in my Annual Report for 1894. The want of additional cottage property is widely felt throughout the district, in fact one-half of the working class have perforce to live outside of the district. Under the present conditions, private individuals have no inducements to build cottage property with a view to adequate remuneration. The question is one which requires careful consideration both on the part of the Council and that of Earl Fitzwilliam, and I trust that in the interests of the ratepayers in general, and the working class in particular, some arrangement may be made which will prove of mutual benefit to all concerned.

Baths.—The question of providing Public Swimming Baths has been before the Council for some time, but, as yet, nothing definite has come of the proposal. Undoubtedly such provision would be a great boon to the inhabitants of the district.

Dairies, Cow Sheds, and Milk Shops Order, 1885.—Special care is taken that the ventilation, lighting, cleansing,

drainage, and water supply on the premises used for the milk trade are thoroughly efficient. Such places, however, require constant inspection; moreover, the inspector should be required to obtain samples of milk from time to time for analysis. That milk supply and certain diseases are connected admit of no doubt, and I am strongly of opinion that infantile diarrhœa and milk supply are most intimately connected under certain meteorlogical conditions.

Ordinary Sanitary Operations.—The ordinary sanitary operations have received careful attention during the year. House to house inspections of cottage property have been made, gulleys, passage drains, &c., have been scoured and kept in order, and the systematic removal of ashpit refuse, at stated intervals, has been carefully superintended.

Nuisance Abatement.—The summary of nuisances investigated and dealt with during 1895, as required by the Local Government Board, is as follows:—

Number of Nuisances reported	.....	153
,, ,,	abated after notice	19
,, ,,	promised abatement	11
,, ,,	in abeyance	123

Isolation Hospital.—During the past four years I have had to report upon the desirability of erecting an isolation hospital, and of making provision for disinfecting articles of clothing, bedding, &c., &c., but up to the present little seems to have been done. An isolation hospital is an actual requirement of the district, and sooner or later must be met, either by the County Council, the Urban Sanitary Authority, or by a combination of Urban and Rural Authorities. In epidemic times, persons infected must mix with those who are healthy, and thus spread disease and suffering, unless provision is made for the isolation of the infected. I quite recognise the difficulty that small communities, like ourselves, have in providing adequate accommodation for fever cases, nevertheless much might be done by eliciting public sympathy with a movement which has for its only object the protection of the public.

The question of providing a Public Playground is still in abeyance.

(Signed)

HENRY MAINWARING-HOLT,

MEDICAL OFFICER OF HEALTH.

January, 1896.

APPENDIX.

SCHEDULE OF NUISANCES

FROM INSPECTOR'S JOURNAL FOR YEAR ENDED DEC. 31ST, 1895.

DETAILS OF NUISANCES REPORTED.

Descriptions of Nuisance.	Number Reported	No. abated.	Number Promised Abatement	No. in Abeyance.
Asphalting (defective)	2	1	1	
Buildings (dangerous)	3	3		
Drainage (defective)	10	7	3	
Gullies (defective)	1	1		
Overcrowding	8	4	4	
Privies (defective)	1		1	
Roadways (dangerous)	1		1	
Spouting (necessary or defective)	125	2		123
Unclassified (decayed skins)	1	1		
Ventilation (defective)	1		1	
Totals	153	19	11	123

NOTE.—The Nuisances in abeyance consist of Fall-pipes discharging roof water unto the Footpaths, instead of being conveyed in open-topped pipes to the Street Channels. The Council made no order, but gave the Surveyor discretionary power to deal with these cases as necessity requires.

ROBT. RICHARDSON,

Sanitary Inspector.

METEOROLOGICAL RECORD, 1895.

WIND DIRECTION.

No. of Days.

	Mean cloud.	N.E.	N.E.	E.	S.E.	S.	S W.	W.	N.W.	Mean force.
Jan....	6·7	9	8	—	8	1	—	1	4	4·7
Feb ..	5·5	3	3	8	6	1	3	—	4	2·9
March..	6·	—	2	—	2	—	13	9	5	3·7
April ..	4·6	—	4	2	11	—	8	1	4	4·
May ..	3·1	4	3	4	10	1	8	—	1	4·2
June ..	3·5	1	6	3	7	4	8	1	—	2·7
July ..	6·5	4	—	1	7	1	10	3	5	3·2
Aug ..	4·3	2	—	—	1	5	15	7	1	3·1
Sept ..	1·8	—	1	2	7	4	10	5	1	2·5
Oct ..	7·1	3	7	1	1	1	3	7	8	4·1
Nov ..	8·8	—	4	1	1	1	13	6	4	4·6
Dec ..	8·6	—	6	3	8	—	10	—	4	4·
	5·54	26	44	25	61	19	101	40	41	3·5

BAROMETRIC PRESSURE.

	Absolute Max. in.	Absolute Min. in.	Date.	Mean.	Total Range.
January 30th	30·50	29·05	16th	29·73	1·45
February 17th.....	30·50	29·70	11th	30·11	·80
March 17th	30·27	28 70	28th	29·70	1·57
April 13th	30·26	29 30	6th	29 83	·96
May 4th	30 55	29·70	17th	30·10	·85
June 24th.....	30·45	29 73	30th	30 08	·72
July 6th	30·25	29 16	21st	29 69	1·09
August 25th.....	30 10	29 05	5th	29·62	1·05
September 15th	30·22	29 35	11th	29 92	·87
October 20th	30·25	28·70	5th	29 44	1 55
November 1st	30·22	28 64	10th	29 51	1·58
December 27th	30 05	28 80	16th	29 46	1·25
Mean	30·301	28·40		29·765	1·145

Absolute Max. Barometric Reading, 30 55 on May 4th Absolute Min., 28·64 on November 1st. Mean Monthly Max., 30·11 in February. Mean Monthly Min., 29·44 in October.

RAINFALL.

	Total Depth. Inches.	Greatest fall in 24 hours. Depth.	Date.	No. of Days on which ·01 or more fell.
January	3 14	·60	20th	25
February...	42	·13	24th	9
March	2 05	·30	4th	18
April	1·34	·36	25th	11
May	0 46	·19	1st	8
June.....	3·12	1 65	26th	11
July	4·76	1·01	18th	20
August.....	1 99	·30	3rd	22
September	1·30	·62	6th	9
October	4·13	·75	7th	20
November	2 74	·40	13th	22
December	1 98	·30	5th	19
	27 50	6 61		194